TRAIL & Landscape

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The Ottawa Field-Naturalists' Club

— Founded 1879 —

President
W.K. (Bill) Gummer

Objectives of the Club: To promote the appreciation, preservation and conservation of Canada's natural heritage; to encourage investigation and publish the results of research in all fields of natural history and to diffuse information on these fields as widely as possible; to support and co-operate with organizations engaged in preserving, maintaining or restoring environments of high quality for living things.

Club Publications: THE CANADIAN FIELD-NATURALIST, a quarterly devoted to reporting research in all fields of natural history relevant to Canada; TRAIL & LANDSCAPE, providing articles on the natural history of the Ottawa Valley and on local Club activities five times a year.

Field Trips, Lectures and other natural history activities are arranged for local members; see "Coming Events" in this issue.

Membership Fees: Individual (yearly) $17 Sustaining (yearly) $40
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Council Report

Fern D. Levine

A Few Highlights of 1986: The Latter Half

National Capital Commission Federal Land Use Plan

The National Capital Commission invited members of both the Council and the Conservation Committee to participate in a meeting to discuss uses of federal land in the National Capital Region. The Conservation Committee then prepared a letter stating our views and in particular, urging protection for the river shores in the Region.

Birds Committee

The Seedathon raised between $1,500 and $2,000 this year. The Bird Status Line was revived in late September; the telephone number is 225-4333.

Conservation Committee

The Conservation Committee is now meeting at the National Museum of Natural Sciences building at 2375 Holly Lane. Some of the current activities include a review of MP Barry Turner's proposal to impose an excise tax on "outdoor activity" items such as binoculars, film and camping equipment. Lynda Maltby is now regional coordinator for eastern Ontario for the Wetlands Awareness Network of the Federation of Ontario Naturalists. The Committee is considering special activities to celebrate Wildlife '87 (see the last issue of *Trail & Landscape*).

Education and Publicity Committee

The Ottawa Field-Naturalists' Club was invited by the National Capital Commission to participate in its 1986 Fall Rhapsody (September 20 to October 26). A booth was put together at the site on Victoria Island to display several types of bird feeders, present miniworkshops on building feeders and give advice on the best types of feed to use. A good deal of interest was shown in our display, and we received a $400 honorarium for our participation. The Ottawa Field-Naturalists' Club also presented displays at the Ottawa Duck Club Art Show (October 24-26), and both the Macoun Club and The Ottawa Field-Naturalists' Club participated in the National Museum of Natural Sciences' Clubs' Day on November 23.

Membership Committee

The second Annual New Members' Night was held on November 14 at the National Museum of Natural Sciences. Committee chairmen gave brief accounts of their activities, and new members had

a chance to get acquainted with the Club.

Ad Hoc Computer Committee

A Computer Management Committee has been established with Bill Gummer acting as chairman. This committee will determine the software and hardware needs of the Club and will coordinate the computer's proper use, maintainance, space needs, scheduling and operations.

The 108th Annual Business Meeting
(by WKG & JMR)

The 108th Annual Business Meeting was held on January 13, 1987; the "normal" 55 members were present. A full account of this meeting will appear in a future issue of *The Canadian Field-Naturalist*.

The following slate of Officers and Members of the Council for 1987 was accepted by the Club members present:

President	Bill Gummer (596-1148)
Vice-Presidents	Jeff Harrison (230-5968)
	Dan Brunton (829-7307)
Recording Secretary	Mona Coleman (829-8419)
Corresponding Secretary	Barbara Campbell (839-3418)
Treasurer	Frank Valentine (592-6461)

Ross Anderson	Ellaine Dickson	Frank Pope
Ron Bedford	Eileen Evans	Joyce Reddoch
Barry Bendall	Roy John	Ken Strang
Allan Cameron	Fern Levine	Roger Taylor
Bill Cody	Lynda Maltby	Wright Smith
Francis Cook		Paul Ward

The names of the six new officers and councillors are underlined. Ken Strang is actually returning to the Council, having served from 1977 to mid-1983. While welcoming these newcomers, we regret the departure of Eleanor Bottomley, who served so conscientiously as Recording Secretary, Barbara Martin, who was Corresponding Secretary after a year as Recording Secretary, Diana Thompson, whose presence was felt strongly on the Education and Publicity Committee, Bob Milko, who had to resign early in the year, and Don Fillman, chairman of the Macoun Club Committee. It is fortunate that several of these persons will continue active in committee work.

Among new business items, the President pointed out that the Club's Constitution and By-Laws have been reprinted in *The Canadian Field-Naturalist*, picking up the 15 changes and additions introduced since the last printing in 1976. The President thanked Theresa Fuller for her assistance in typing Club correspondence and documents. ¤

The Natural Heritage League

Don Cuddy

I recently attended the fourth annual meeting of the Natural Heritage League at the Royal Botanical Gardens in Burlington. While impressed by the achievements of the League and the general enthusiasm expressed at the meeting, I was surprised to see that of more than a hundred participants, I seemed to be the only one from eastern Ontario. This confirmed my suspicion that the League is not well known in this part of the province. This note is intended to give *Trail & Landscape* readers a brief overview of this organization.

The origins of the Natural Heritage League stem from a conference on Natural Heritage Protection in Ontario hosted in November 1982 by the Ontario Heritage Foundation. A recurring theme at this conference was the lack of coordination between the various groups working to protect our natural heritage. A follow-up meeting of about 20 representatives of private and government agencies resulted in the formation of the Natural Heritage League on December 16, 1982.

The Natural Heritage League is a coalition of conservation organizations interested in the protection and management of natural areas in Ontario. It acts as an umbrella agency to coordinate the efforts of member organizations, especially for projects which might be too large or too complicated for any one group to undertake. As of November 1986, the League had 26 member agencies. (The Ottawa Field-Naturalists' Club is represented by the Federation of Ontario Naturalists, with which it is affiliated.) The League meets annually but has a coordinating committee which meets several times a year. There are also subcommittees which work on specific projects.

So, you may ask, what does it really do? In its four years of existence, the League has accomplished a great deal, initiating several projects on its own and participating in others. It maintains an "action list" of privately-owned, provincially-significant natural areas on which cooperative protection efforts are concentrated. These efforts include the funding of research and an extensive program of landowner contact. A "Natural Heritage Stewardship Award" has been developed for presentation to landowners who agree to protect the natural features on their property.

Recently, the League has become the coordinating body for the Carolinian Canada project. Initiated by the World Wildlife Fund and supported by other League members (the Nature Conservancy of Canada, Wildlife Habitat Canada, the Ministry of Natural Resources and the Ontario Heritage Foundation), this project has

the goal of protecting critical habitat in the Carolinian forest zone of southwestern Ontario. As with most projects with which the League is involved, there is a strong emphasis on the encouragement of private land stewardship and other means of protecting land, rather than outright acquisition. When acquisition is involved, it is usually delegated to a member agency (such as the Nature Conservancy) with experience in this area.

In response to serious concerns about property taxes on heritage lands, the Natural Heritage League presented a paper on property tax reform to the Premier in 1984. After additional lobbying by the League in 1986, the Premier announced in October that the province would extend to natural heritage lands the same property tax rebates which are available for agricultural and managed forest lands.

The League has also sponsored the recently-published *Islands of Green*, a "how-to" book on natural heritage protection. It is currently available from the Ontario Heritage Foundation ($12.00 postpaid) and should soon be available from the Nature Canada Bookshop.

These are just some of the activities of the Natural Heritage League. For more information on the League or for a copy of *Islands of Green*, I suggest you contact the Ontario Heritage Foundation, 2nd Floor, 77 Bloor Street West, Toronto, Ontario M7A 2R9. ¤

The 75th Anniversary of the National Museum

Diamond Jubilee of the Victoria Memorial Museum Building

An exhibit celebrating the history of the National Museum of Natural Sciences and the 75th Anniversary of the Victoria Memorial Museum Building is being held in the

Special Events Gallery, 3rd Floor East
Victoria Memorial Museum
Metcalfe and McLeod Streets

until September 7, 1987

Welcome, New Members

Ottawa Area

Gillian Barany & family
Jacques & Gaetane Beaudoin
Selina Beck-Black
Jo-Anne Benson & family
Ruth Bode
Sylvia Buckminster
Christina Caap & family
Rosie Cusson & family
Gillian Davis
Douglas Doak & family
Laureen Duquette
Nadine Garrett
Mrs. Geo. P. Holland
Ian Huggett
Doug & Anita Long
Peter C. & S.O. MacNaughton
Barb & Garry Mann
Winnifred McCleery
Cal McKerral
Shawn McNevin
Claire Miquet & family
Audrey Moffatt
Patricia Preen
Audrey Reekie
Ellen Ricard & Ron Marchant
James Richardson & family
Michael Sabadoz
Ruth & Marion Saunders
Allan W. Stevens
Mary & Godfrey Tippett
Beverley van der Giessen
Aileen L. Wade
Sandy Willis

Other Areas

Michael Bradstreet
King City, Ontario

Bob Doepked
Quinnesec, MI

Steven Heiter
Montreal, Quebec

Jeff Hudson
Guelph, Ontario

Dr. Murray Kennedy
Edmonton, Alberta

Michael Schellenberg
Swift Current, Sask.

Eileen Evans,
Chairman,
Membership Committee.

Trail & Landscape Circulation

Circulation of the January-February issue was as follows: a total of 1051 copies was mailed, 1026 of them to members, subscribing libraries and other institutions in Canada. Twenty-five copies were sent outside Canada, 20 of them to the United States. The cost of mailing that 64-page issue was $67.63.

Colour Forms of Ottawa District Orchids *

Allan H. Reddoch and Joyce M. Reddoch

Colour in Flowers

Human beings throughout much of the world and much of history have admired the beauty of flowers, their form, their fragrance and their colour. Why this should be so seems puzzling, for there is little to be gained in comparison, say, to admiring fruit that may lead to a nutritious meal. Certainly, there would have been little evolutionary advantage to the plant to attract humans who would pick the flower.

The basic function of flowers is to exchange pollen with flowers on other plants for the production of seed. Some plants, including grasses, most of our trees, and ragweed, simply allow the wind to blow the pollen from one plant to another. Much of it, as every hayfever sufferer knows, does not reach its target. In such plants, the flowers are usually small, green and inconspicuous. Other species, however, seek a more efficient transfer and enlist the aid of insects or birds to carry the pollen from plant to plant. To do so, these plants need to advertise with showy flowers and to provide some inducement in the form of nutritious nectar. Admittedly, there is some deceptive advertising by some species where the flowers are showy but no nectar is provided. To improve the efficiency still more, some species, particularly orchids, have developed very cunning techniques to ensure that suitable insect visitors are, in effect, forced to carry pollen, and to do so in such a way that the pollen is properly deposited on the next plant.

The flower colour (and sometimes odour) must attract a suitable pollinator and be sufficiently characteristic that the pollinator can then find another plant of the same species. The flower may then have those colours that an appropriate pollinator can see: yellow and blue as well as ultraviolet for bees; reds for birds; reds and purples for butterflies; and pale colours and white for night-flying moths.

The colours are produced by a small number of classes of pigments: anthocyanins, which tend to be red, pink, blue or purple; carotenoids, which are yellow or orange; and chlorophyll, which is green. The production of these pigments is determined genetically, and it is clearly advantageous to maintain reasonable uniformity of colour to ensure user loyalty, as well as uniformity of flower shape to ensure efficiency.

* *Part II in a series on Ottawa District orchids; Part I appeared in the last issue.*

Colour variation from plant to plant nevertheless occurs, much of it fairly minor changes in intensity or hue. Differences in the concentration of a pigment make a colour more or less intense; for example, plants of the Large Purple Fringed-orchid (*Platanthera grandiflora*) (Reddoch and Reddoch 1987) have flowers that range from very pale to very deep lilac. Petrie (1981) illustrates his account of that species with photographs of a Gatineau Park plant (Reddoch 1976) with very pale flowers.

If there are two or more pigments, changes in concentration of one of them may result in the hue varying from, for example, brown to gold, brown to red, or red to orange. Helleborine (*Epipactis helleborine*) has a great range of colours because its petals and sepals usually contain both a pink and a green pigment which can be quite variable in their relative concentrations. Such variations are not of great interest, however, and we will pass on to somewhat more dramatic differences.

Variation in Pattern

A more specific type of variation involves pattern changes. Many species have a fairly consistent pattern, aside from random little details like small dots. Thus, the Showy Orchid (*Galearis spectabilis*) ordinarily has mauve sepals and lateral petals and a white lip. However, rarely one or more plants in a colony have lips that are not white but mauve like the rest of the flower. Although this form was given a name, forma *willeyi*, only in 1970, there are two Ottawa District collections more than a century old in the Agriculture Canada herbarium (DAO), as well as four more recently observed colonies. Both of the old collections were made and annotated by James Fletcher, one in 1878 from Beaver Meadow, Hull (Reddoch 1979), "whole flower, lip & hood light mauve", and the second in 1879 from Patterson Creek Wood, Ottawa, "whole flower deep purple". More recently, there was a colony in Niven's Woods in Gloucester (Reddoch 1980) until that area was subdivided for houses. Figure 1 shows a plant from that colony. In 1973, we found a few plants of forma *willeyi* in a colony near the northwest corner of Kanata Pond. North of the Ottawa River, Hue MacKenzie photographed in colour a colony in the vicinity of the Larrimac Golf Course in 1966. There is also a colony in the lower part of Gatineau Park (Figure 2), where we hope it is safe from development (and collecting). The forma *willeyi* is an addition to the checklist in *Orchids of Ontario* by Whiting and Catling (1986).

A less spectacular but somewhat similar situation involved a plant of the Small Purple Fringed-orchid (*Platanthera psycodes*) that we found along a roadside in Cumberland Township in 1976 (Reddoch and Reddoch 1987). In this case, the sepals, while still lilac, were very much paler than the petals. This unnamed form had a striking two-tone appearance. Unfortunately, this plant and the normal ones in the colony have since disappeared, presumably due to the township's herbicide spraying.

Figures 1 and 2. The coloured-lipped form of the Showy Orchid from Niven's Woods (left) and Gatineau Park (right). Note that the lips are the same shade as the hoods.

Absence of Anthocyanins

The next group of variants results from the complete failure of the plant to produce the red, pink or purple anthocyanin pigment. This is an uncommon, but widespread and quite dramatic, occurrence among flowers. Perhaps the best known local example is the rare yellowish-white form of the Red Trillium. Gerardia and Gaywings provide other examples. This type of colour change seems to be of little interest to most botanists, but intrigues field naturalists and even provides a living for some horticulturalists. An example is the white Poinsettia, although here the red pigment was in the bracts rather than the flowers. Among the native orchids of Canada, almost every species with noticeable amounts of red pigment is known to have a named form lacking that pigment. Several of these occur in the Ottawa District.

The term "albino" is often used to describe an individual in which a pigment, normally present, is missing. If no other pigments are present, the result will be white, as the word implies. However, it is important to note that such an absence does not always yield white. When a species ordinarily has two or more pigments, only one is likely to be absent. Then the colour will not be white but will depend on the colours of the

remaining pigments, for example, yellow or green. In such cases, the word "albino" can be misleading. It also fails to indicate which pigment is missing and whether the flower or the rest of the plant is affected.

A striking example of the absence of an anthocyanin is the white-flowered form of the Pink Lady's Slipper (*Cypripedium acaule* forma *albiflorum*) with its pure white lip (Figure 3). The sepals, which are usually reddish-brown because of the presence of both the magenta anthocyanin and green chlorophyll, are now green. The critical diagnostic feature of this form is the pure whiteness of the lip. Occasional plants, as well as the buds, can be quite pale, but these are not forma *albiflorum*. Sometimes several white-lipped plants occur fairly close to each other as a small group in a much larger stand of the normal form. White-flowered plants then recur from year to year in this same group. Probably the same plants are producing these white flowers each year, but we have not marked individual plants to prove this point.

In the District, this form was first collected in 1906 near Aylmer, Quebec, by W.H. Harrington. Five more stands have been recorded in recent years. Bill Dore (1969) reported a stand in the Larose Forest. Unfortunately, this large colony has been much reduced in numbers, probably due to the growth of the forest and undergrowth. West of the Rideau River in Ottawa-Carleton, three other colonies are known. For years, Enid and Clarie Frankton have visited a colony in the western Greenbelt close to Highway 417. Harry Thomson photographed a colony in March Township in 1968, and that same year, members of the Club's Native Orchid Location Survey discovered another colony in Huntley Ward of West Carleton Township. From north of the Ottawa River, Daniel Gagnon reported 12 plants in the western part of Gatineau Park to the Native Orchid Location Survey in 1975.

There is also a pure white form of the Small Purple Fringed-orchid (*P. psycodes* forma *albiflora*). Again, some pale individuals also occur, but a close examination of these plants will reveal the remaining lilac pigment of the outer part of the lip in contrast to the natural pure white at the base of the lip. (Petrie's photograph of *Platanthera grandiflora* mentioned above illustrates this subtlety.) In forma *albiflora*, the entire lip is a uniform pure white. The first record of this form in the District seems to be a report of a collection by Henry Ami from Ironside in 1888 (Fletcher, Small and Baptie 1888). Ed Greenwood told us in 1977 about two plants of this form that he found near Buckingham in 1962, describing their flowers as "very pure, dazzling white and very beautiful". However, in recent years, the area in question was so heavily overgrown that no plants could be found. More recently, in 1980, we encountered a few plants among a colony of about 35 normal plants discovered by Ross Layberry near the Mountain Road south of Gatineau Park

Figure 3. The white-lipped form of the Pink Lady's Slipper.

Figure 4. The white-flowered form of the Small Purple Fringed-orchid.

All photographs are by the authors.

in the wet border of a creek. After a few years, the entire colony disappeared for unknown reasons, but not before the accompanying photograph was taken (Figure 4). In 1982, Clarie Frankton found two white-flowered plants among a number of normal ones in the southern part of Gatineau Park.

A quite common, but easily overlooked, example of lack of anthocyanin occurs in the Early Coralroot (*Corallorhiza trifida*). The typical variety has small ruby-coloured spots at the bases of the lip, lateral petals and column. In addition, the tips of the sepals are a light brown that might be mistaken for the ageing of the flower. In variety *verna*, the spots are missing and the sepals are a pale greenish-white. Since the plants are small and the spots very small, while the cedar swamp habitat is often fairly wet and dark, many naturalists avoid wet knees and do not check which form they have. The two varieties seem to be comparably abundant in the District, although we do not have a numerical estimate. This orchid frequently occurs in dense clumps perhaps 10 cm in diameter which are all of one variety.

The Spotted Coralroot (*Corallorhiza maculata*) provides our final example of anthocyanin absence. In the common form, the colour can be quite variable from one plant to another, as well as from one part to another of a single plant. The range can be from gold to brown to dark purple. This variability of hue suggests, as discussed above, that it has more than one pigment. The name of the species arises from the conspicuous, purplish-red spots on its otherwise white lip (Figure 5). These spots reveal the colour of one of the pigments, the anthocyanin. The much rarer form, forma *flavida*, is a uniform bright yellow except for the lip, which is pure white - an *un*spotted Spotted Coralroot (Figure 6). This magnificent plant lacks anthocyanin, but because of the second pigment, it is not white. We see that this other pigment is a pure yellow. Probably it is a carotenoid. We applied a simple chemical procedure called paper chromatography to the normal plant and found that indeed it contains just these two colours, yellow and purplish-red.

At a Native Orchid Location Survey meeting a decade ago, participants were asked to watch out for colour forms of the local orchids including this one, prompting the late Anne Hanes to recall a colony in Gatineau Park that she had known since 1965. We have followed this colony since then. In an area about 50 m by 100 m, there may be a dozen normal plants and a couple of the yellow form, all widely separated. Some years there may be twice as many plants; in other years there may be no yellow plants, as in 1986. Over this period, we have never seen a plant of the yellow form reappear where one had been before. The normal form also does not seem to occur in the same place twice, except when there is a dense clump of plants. Then the clump may persist for two or three years, although perhaps not the same individuals.

Figures 5 and 6. The normal (left) and yellow (right) forms of the Spotted Coralroot, both from Gatineau Park. Note the absence of spots and of dark tips on the sepals and lateral petals in the flowers on the right.

Absence of Chlorophyll

The final colour variation to report is the complete lack of the green pigment, chlorophyll. While the loss of anthocyanin is probably not too significant to a plant, aside from a possible reduction in the chance of being pollinated, the loss of chlorophyll would usually be much more serious. It is chlorophyll which allows a plant to absorb light from the sun and so to obtain the energy necessary for the complex chemistry of growth. A plant lacking chlorophyll ought to be unable to grow, but we know a few such species which routinely develop flowers and produce seed. The most familiar is the Indian Pipe, but the Coralroots discussed above are other examples.

These species, which lack significant leaves as well as chlorophyll, have obviously worked out other ways to survive. Essentially, the chemicals that these plants cannot make for themselves are obtained from a fungus in the soil at the roots of the plant. Many green plants also interact with a fungus but are not so completely dependent upon it. Many orchids require such a fungus for their seeds to germinate, but in the case of the green ones, dependence on the fungus would decrease as they mature. From these observations, it would be difficult to predict whether a normally green plant could survive with the aid of the fungus if it failed to produce chlorophyll.

In 1979, Bob Bracken told us about two white Helleborines in Stony Swamp. We found the plants to be smallish, about 15 cm tall, and whitish throughout except for a light yellow in the unopened buds and a reddish-lilac colour at the base of the stem. One plant had three buds and the other four. These plants were the form *monotropoides* first named by Henry Mousley in 1927 from Montreal because they resembled the Indian Pipe (*Monotropa uniflora*). A later visit showed that the buds had started to open, revealing some anthocyanin down in the lip of the flower. However, it was clear that the plants were dying, and the flowers did not open fully. No such plants were seen there the following year.

In contrast, a few years ago Tony Resnicek told us of some plants of the Northern Bog Orchid (*Platanthera hyperborea*) that he had seen near Collingwood, Ontario, which lacked chlorophyll but grew successfully to flower and to produce seed. Then in 1985, Marilyn Light found several of these plants growing widely scattered among normal ones in Gatineau Park. She also reported that this form matured normally. Similar plants were seen there in 1986; each plant was entirely pale whitish-yellow. (This form does not have a scientific name.) Both forms in the colony were the relatively small type, about 19 cm tall, which seems to favour fairly well-drained forested areas, particularly in Gatineau Park.

Other Records

In addition to the species above, which we have been fortunate enough to see and photograph in colour in the field, two others should be mentioned. The first is the white-flowered form of Arethusa (*Arethusa bulbosa* forma *albiflora*). This rare example of anthocyanin absence was reported from Poltimore, Quebec, by Dan Brunton (1985). Our own visits to that site in other years have turned up only some plants which were distinctly lighter than normal but certainly not pure white.

The other species illustrates a problem in documenting colour variations. Most botanists demand a pressed specimen to verify the identity of a plant. After 50 or 100 years, however, the specimen is likely to be a uniform brown, which tells us nothing about its original colour. A careful annotation on the sheet certainly helps. A good colour photograph would also help, although such colours are not always accurate, and who knows what they will look like a century from now.

This preamble brings us to the fairly rare and rather uninspiring Tubercled Orchid (*Platanthera flava*), which grows in a few places along the Ottawa River shore. A 1966 collection by Larry Sherk and Ed Greenwood from the area of Remic Rapids Lookout has been annotated forma *lutea* by Bernard Boivin. The origin of this name is confused, and the only description says merely that it has yellow flowers (Catling 1982). At present,

the specimen seems no different from many others of the species. Usually the flowers of this species are yellowish-green and may well contain both yellow and green pigments. A yellow-flowered form may thus have lost some or all of its green pigment in the floral parts, but in the present case the extent of the loss is impossible to determine. The plants we saw at the site were the normal form. Unfortunately, a storm sewer outlet had already destroyed much of the colony, and what was left has since disappeared.

In closing, we would like to thank all the people named above who brought these fascinating plants to our attention. We would be interested to hear of other examples of distinct colour variation in Ottawa District orchids and in other species as well. We thank Paul Catling for his critical reading of the manuscript which helped us to clarify a number of points. Colour photographs of the forms described have been deposited in the Agriculture Canada herbarium (DAO).

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An Albino Garter Snake

Nicholas P. Coad and Brian W. Coad

Albinos occur occasionally in many species of vertebrates and are assumed to be the result of a chance mutation blocking synthesis of pigments such as melanin. The first clear record of albino Eastern Garter Snakes (*Thamnophis sirtalis sirtalis*) for Ontario was made by Weller (1983) based on two specimens from a litter of 14 born to a captive female of normal pigmentation taken at Moira Lake, Hastings County, in 1970. One of these specimens appears in a colour photograph in Froom (1972). No measurements or weights were taken, and neither snake was preserved. Dyrkacz (1981) reviewed recent instances of albinism in North American amphibians and reptiles, and recorded 17 albino Garter Snakes, but again, most were not measured or preserved, and locality data were often vague. Good records, and specimens that vouch for the records, confirm that albinism occurred in a population at a given time. This knowledge is then available for future study in case someone wishes to pursue a study of abinism. One could search for years without finding albinos; a known locality may at least increase your chances!

An albino Eastern Garter Snake was caught by Nicholas Coad under a rock in a grassy clearing among bushes in a field east of Copeland Park between Clyde Avenue and Merivale Road, Ottawa, on September 6, 1986. This area, owned by the federal government, is about to be sold for development. The albino has red eyes. Its body is flesh-coloured, but bears a thin, dorsal, bright yellow stripe and thicker, lateral, bright yellow stripes with a faint check pattern between them formed by white areas and background flesh colour. White areas can be seen on normal Garter Snakes from the region but are visible only when the skin is distended by deep breaths or large meals and at other times are masked by black pigment. The lip and nose scales and the dots on the parietal scales on the top of the head are yellow. The underside of the body has a yellow cast, but the chin is white. The tongue is red without a black tip. The specimen, measured on September 8, 1986, had a total length of 210 mm and a body length of 164 mm. It weighed 2.41 g. These figures compare well with normal Garter Snakes in the region and indicate a young individual born this year. The specimen is being maintained alive at the Herpetology Section, National Museum of Natural Sciences, and bears the catalogue number 28723.*

The snake is a partial albino of a type retaining yellow pigment (or xanthophores). There are several subspecies of Garter Snakes that are recognized by their colour patterns. An albino, such as this specimen, could be of use in discovering

* *The snake was found dead on October 21, 1986. (M. Rankin)*

The albino Eastern Garter Snake caught on September 6, 1986

how these colour patterns are determined, and if it can be bred to normally-pigmented individuals.

Exhaustive (and exhausting) searches in the area of capture have failed to find any other albinos. It is difficult to obtain a measure of rarity for such an albino in a populational sense, but an albino Garter Snake was offered for sale in the United States for US$500.

We are indebted to Dr. Francis R. Cook, Curator of Herpetology, National Museum of Natural Sciences, Ottawa, for literature sources, helpful comments and measurements of the albino.

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The Threat to the River Redhorse

Jennifer Chaundy

In *The Globe and Mail* on November 26, 1985, I noticed a call for tenders from the Ontario Ministry of Natural Resources to construct and operate a micro-hydro power facility. This facility would be at Blakeney Falls on the Mississippi River between Pakenham and Almonte, in Lanark County west of Ottawa. Blakeney Falls is a small but charming area of natural beauty, and I was unhappy to think it might be spoiled.

As it happens, Dr. Don McAllister, Research Curator of Fishes at the National Museum of Natural Sciences, sent us a copy of the Museum's *Syllogeus 54 - Rare, Endangered and Extinct Fishes in Canada* for Christmas as he had discovered the rare River Redhorse (*Moxostoma carinatum*) (Figure 1) at Blakeney Falls, which is near our cottage on the Mississippi River. I reported to him the possibility of the dam.

The status of the River Redhorse was established as rare by the Committee on the Status of Endangered Wildlife in Canada. It is known from only three areas of Canada, one in southwestern Ontario, a second near Montreal, and a third in the Mississippi River. The most viable population is in the Mississippi River (Figure 2).

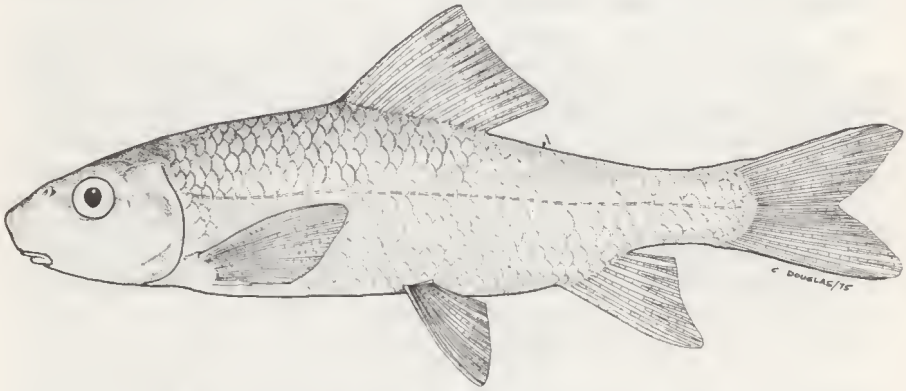

Figure 1. River Redhorse

I heard from neighbours and residents in Blakeney that others were concerned about the park being spoiled, and decided to express my concern to the Province's elected officials. In March of 1986, I wrote to the Hon. V. Kerrio, Minister of Natural Resources; the Hon. J. Bradley, Minister of the Environment; and Mr. Al Mack, Ministry of Natural Resources, Carleton Place; as well as my M.P.P., Mr. Reuben Baetz.

The responses I received were that the Environment Ministry originally had regarded the project as small and of minimal impact, but after local objections, it was reviewing the matter with people knowledgeable about fish. Mr. Kerrio said a delay would be put on the approval until investigations on the River Redhorse were done in the spring. From Mr. Baetz, I received a copy of a letter he had received from Mr. Kerrio, who said it was government policy to encourage private sector hydro development and that the Dupuis family, who already had a generator at Galetta on the lower Mississippi River, wanted another at Blakeney. The Dupuis family was prepared to sponsor some exploratory research into the River Redhorse that summer (1986).

In early October, I wrote again to Mr. Kerrio to find out the results of their research and was told that the proponent did not complete all the research required, and subsequently withdrew his request to develop the site at Blakeney.

I hope the park will remain an unspoiled area without any buildings. It seems a contradiction to allow "development" in public land which is for us all to enjoy in its natural state. It also seems to me that it is a conflict of interest when the Ministry gets a percentage of the profit.

I have no previous experience in this sort of thing, but it shows that anyone can have an influence if we take the time to write and express our views.

Figure 2. Habitat of the River Redhorse, the Mississippi River at Blakeney. Both figures courtesy of Don McAllister. ¤

The Sex Life of the Male Fathead

Brian W. Coad
Ichthyology Section
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Ottawa, Ontario K1A 0M8

On several occasions I have been brought specimens of a small fish by concerned, curious and disgusted students. These fish, they insist, are horribly diseased and, in evidence, they point to the nasty bumps on their heads. Far from being sick, however, these fish are at the peak of their sexual prowess and use the bumps, known as nuptial or breeding tubercles, to drive away other fishes from the nest site.

This particular fish is the Fathead Minnow (*Pimephales promelas*), which is common and easily caught in ponds, lakes and muddy streams of the Ottawa District. Its reproductive behaviour and anatomy have been well studied both for their general interest to biologists and because this fish has been pond-reared as food for cultured Smallmouth Bass in the United States. The sex life of male fatheads is a fascinating study in behaviour and structural adaptions.

*Figure 1. A male Fathead Minnow (*Pimephales promelas*), 69.6 mm total length, from a stream draining Lac au Foin, Gatineau Park, Quebec, June 28, 1982 (NMC82-0335).* Illustration by Susan Laurie-Bourque.

The nuptial tubercles are evident only in the male during the spawning season (Figure 1). Spawning begins when water temperatures reach about 16°C, and this varies with the habitat and year. Males with developing tubercles can be caught in the Ottawa District as early as April 13th, and the tubercles are fully developed through late May to June and into July or even early August. In late July and August, males begin to lose their tubercles, and by early September only scars remain. The large tubercles are arranged in three rows across the snout, often seven or eight in the lower row (range 4 to 15), usually seven in the middle row and usually four in the upper row. In addition, there are up to 11 large tubercles on the chin. Minute tubercles are found on the top of the head and as a single row on the larger pectoral fin rays.

Other features also characterize the breeding male, in particular: a spongy, slate-blue, wrinkled pad forming a broad band at the nape and tapering to the dorsal fin; a darker colouration notably of the head and dorsal fin which may be jet black; light bands behind the head and below the dorsal fin with intervening areas dark; a thickened, blunt, first dorsal fin ray; and the swollen membranes of all the fins. Males are larger than females. In contrast, the females are quite dowdy and lack the tubercles, pad and darker colouration. Their vent region is swollen, no doubt to aid in egg deposition, and there is some swelling of fin membranes, particularly of the anal and pelvic fins which are near the vent.

The male fathead chooses a suitable site for spawning in shallow water. This is usually the underside of a log, branch, twig or bank and rarely a lily pad. Artificial objects like planks will also be used. The male then chivvies a passing female into position below his chosen site, pushing and snapping at any female who shows reluctance. The male then takes up a position usually on the left side of the female. He then pushes the female in circles until he can lift her up on her side using his back. This action brings the female in close contact with the spawning site, the eggs are extruded and, being sticky, adhere to the underside of the site. The male fertilizes the eggs and drives away the female. The male selects several females and repeats this process with each one so a nest will contain several batches of eggs in various stages of development.

The male defends the nest site using his tubercles to butt and drive away other fishes including members of his own species, leeches and even turtles. He turns slowly with jerky movements so that all possible routes egg stealers might use are checked out. Despite valiant attempts, eggs are lost when the male is energetically driving away several intruders at once and one is able to sneak in while he is distracted. The repeated spawning with several females may be necessary to replace lost eggs.

This whole strategy is devoted to protecting the developing eggs for perhaps two reasons. A female can produce only a limited number of eggs because of her small size (adults are about 50-70 mm total length.) Fish from the Ottawa District that I have examined contain as few as 120 eggs, although there may be several hundred produced in a season. This situation compares dramatically with species that broadcast their eggs and leave them to chance survival. (The large carp may deposit over two million eggs, and even small species such as Silvery Minnows can produce up to 6,600 eggs.) Survival of fathead eggs cannot be left to chance, and some kind of care and defense is an evolutionary advantage. The second reason is that the favoured environment of fatheads often has a mud bottom. The inverted position of the nest protects the eggs from being smothered and also conceals them from some predators.

The function of the pad brings in another fascinating aspect of fathead biology. The pad secretes a mucus which is used to clean vigorously the spawning surface and to protect the developing eggs. This rubbing, and possibly the chivvying and lifting of females, should present a problem to fatheads. Like other minnows, they have the remarkable capacity of releasing an alarm substance into the water if the skin is abraded. Other fatheads detect this chemical and go into a fright reaction which may save them from predators.

A male fathead could not go through a successful courtship if it kept releasing alarm substance whenever it cleaned the spawning site or rubbed against a female. The male would frighten itself and potential mates away from the spawning site. In fact, male fatheads lose the ability to produce alarm substance during the breeding season. This is not a disadvantage to the males since the substance works only to protect other fatheads when they are within scenting distance of each other. If a male retained the alarm substance and was eaten by a predator during the breeding season, the alarm would not be passed along because breeding males keep their territory clear of other fatheads except for the brief courtship and egg laying by females. The males do retain their own fright reaction to alarm subtance from other fatheads. Females do not lose their alarm substance, suggesting there is little abrasion during courtship and it is the cleaning function of the pad in preparing the nest site that necessitates a temporary male loss of alarm substance. Of course, fighting males could cause abrasion and release alarm substance. The male defending a nest site needs his wits about him and does not want to set off a panic reaction in himself. However, the butting of males seems to be of a tubercle to tubercle type, and little injury results.

And finally, fatheads are so named not because of any mental deficiency, but because males have short, rounded and, hence, fat heads. ¤

Another Record of the Hairy-tailed Mole in the Ottawa District

Mark Gawn

For some reason, moles and shrews die inexplicable deaths, leaving their enigmatic corpses on the roadside for naturalists to ponder over. Thus, it was no surprise when Stephen Gawn and I, while conducting a fall bird count on August 31, 1986, discovered a dead mole in the middle of the sandy track.

The surprise came when we examined the fresh corpse more closely. The mole had the short, luxuriant pelt and short flipper-like feet typical of the familiar Star-nosed Mole (*Condylura cristata*). However, it lacked the fleshy protuberances which fringe that beast's snout, giving it both its peculiar appearance and name. The shrew-like, pointed nose, and short, hairy tail identified our specimen as a hairy-tailed Mole (*Parascalops breweri*), something that neither of us had ever seen before.

Upon our return, I consulted what references I have and discovered that our sighting, a few kilometres north of Thurso, in Papineau County, Quebec, (map reference 31G/11 VF805550) was at the northern edge of this mammal's range. Nonetheless, I thought little of it, assuming it to be yet another example of a common species that had heretofore escaped my notice.

Thus, it was with some interest that I read of Daniel F. Brunton's recent note (Trail & Landscape 21(1): 15-17 (1987)) of the scarcity of records for this species in the Ottawa District. Our sighting, made in abandoned farmland in a sandy valley floor, seems to be in appropriate habitat. Along with Brunton's record, it indicates that the Hairy-tailed Mole is more widely present than is currently known.

Had it not been for the article by Brunton, I would never have thought to submit this note, and the record would have been lost - until some brave soul attempts to decipher my scrawled field notes! This experience highlights both the need for notes like Brunton's in journals such as *Trail & Landscape*, and the need for all naturalists to keep accurate accounts of interesting observations. Unfortunately, we did not think to keep the specimen, and upon our return an hour later, insects had already started the process that would eventually return the mole to the soil. ¤

Where to See Migrating Waterfowl East of Ottawa

Bruce M. Di Labio

Two of the best waterfowl viewing areas in the spring can be found in the southeastern section of the Ottawa District. One which is familiar to most people is the area just east of Carlsbad Springs known as Bear Brook (Figure 1). The other, just recently discovered, is the Cobb Lake Creek - Pendleton - Riceville area along the eastern edge of the District (Figure 2). Both locations flood during the spring thaw, and the surrounding fields become attractive to migrating waterfowl. One of the factors that determines the amount of flooding is the timing of the thaw. As records indicate, no two years are alike, and some years flooding is minimal due to lack of snow.

Carlsbad Springs - Bear Brook

To get to Bear Brook from Ottawa, follow Highway 417 east to the Anderson Road exit. Turn left on Anderson Road and continue north to Russell Road (Regional Road 26). Turn right and follow Russell Road through Carlsbad Springs. After travelling approximately 3 km east of the town, turn left onto Regional Road 31. Travel north for about 2 km to the bridge over Bear Brook. To the east, scan for waterfowl. In good years when the water is high, thousands of Canada Geese and other waterfowl can be observed feeding and resting in the flooded fields. Carefully check through the flocks of geese for Snow and Greater White-fronted Geese. Depending on the water level, watch for diving ducks such as Ring-necked Duck, Lesser Scaup and Hooded Mergansers; anything is possible.

Once satisfied that you have seen everything, continue north on Regional Road 31 for 1 km and turn right onto Perrault Road. Drive east until you reach Concession 8. Turn right and drive up to the bridge. During good years of flooding, both sides of the road can be excellent. Again, check through the Canada Geese. This section, having more extensive deep water, is usually better for diving ducks than along Regional Road 31. Table 1 shows my observations during high water levels for the past two years.

Once you have finished scanning over the area, continue south on Concession 8 to Russell Road. Turn right to head back to Ottawa, or left to the Cobb Lake Creek - Pendleton - Riceville area.

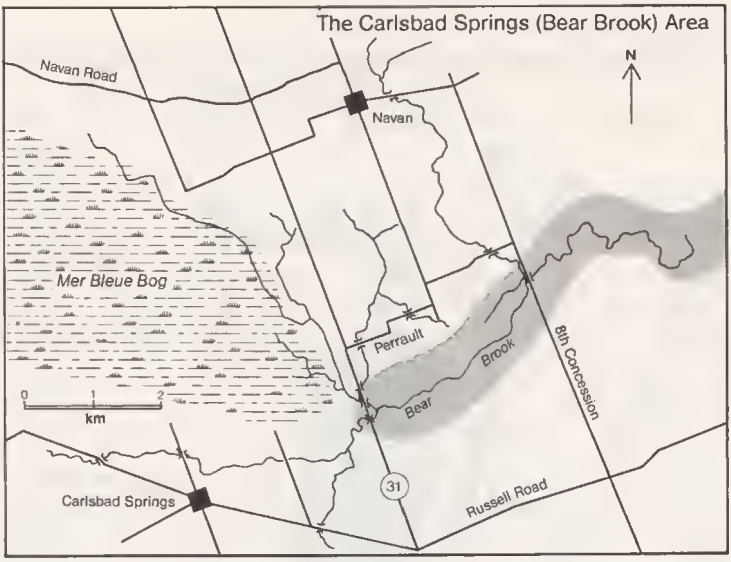


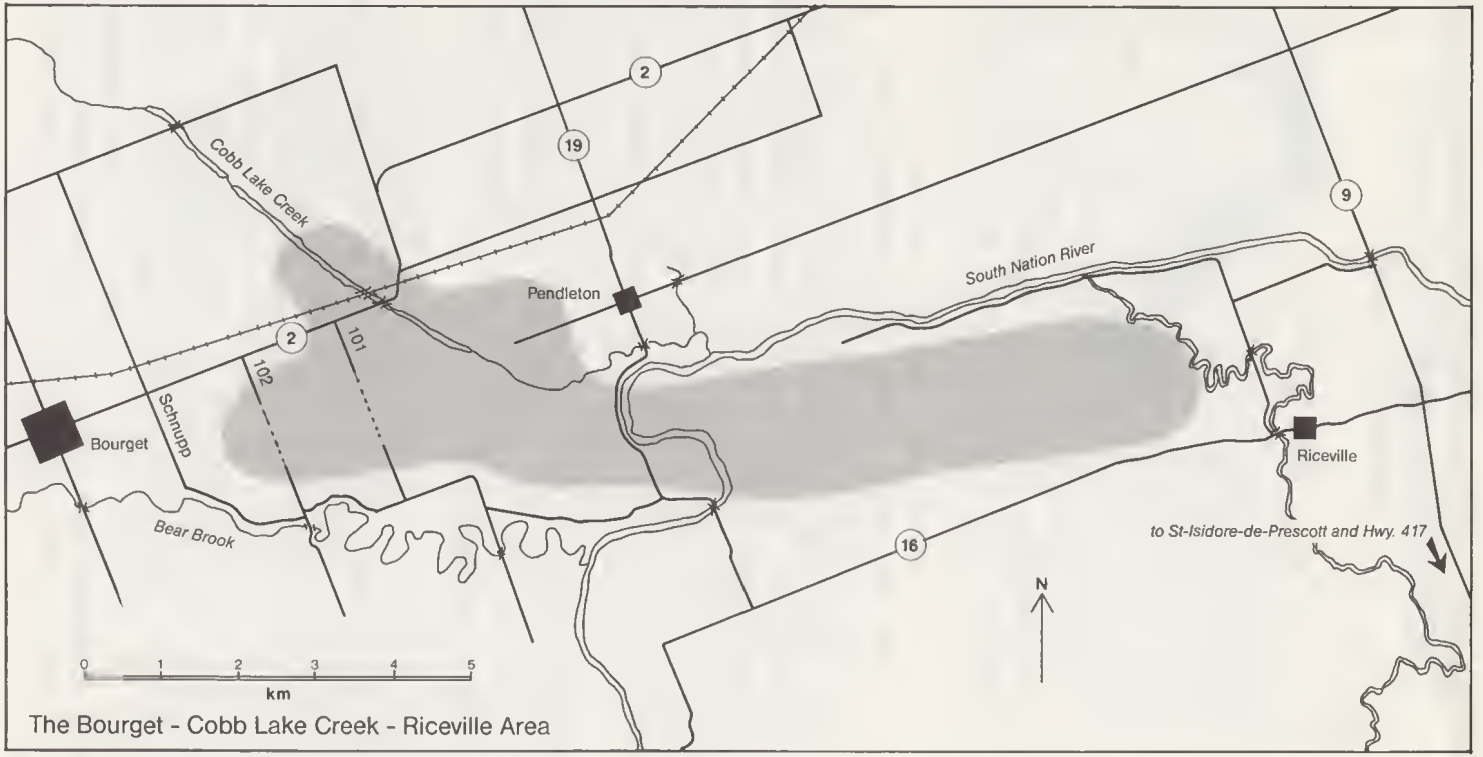
Figure 1

Cobb Lake Creek - Pendleton - Riceville Area

After turning left on Russell Road from Concession 8, go east for approximately 20 km. You will go through Bear Brook, Cheney and Bourget. The name of the road will change to Prescott - Russell County Road 2. After passing through Bourget, go roughly 6 km to the bridge that crosses Cobb Lake Creek. On either side of the road, a large lake may have formed if the conditions are favourable. Thousands of geese and ducks can be observed from this point. Look for diving ducks here also.

After carefully checking the flocks for waterfowl, continue along County Road 2 and turn right onto County Road 19, which runs roughly north-south. Follow south through the town of Pendleton to where the South Nation River flows along side the road. Check the surrounding fields.

Continue south on County Road 19 over the bridge and up to County Road 16. Turn left and follow County Road 16 east through Riceville to County Road 9. As you drive along, watch to the left for concentrations of geese. Turn left onto County Road 9 and follow it until just before the bridge that crosses the South Nation River. At this point, turn left onto the side road. Drive along for a short distance, then turn right at the T-junction. This dead-end road follows parallel to the South Nation River for a few kilometres. As you drive down the road, you will note a few farm buildings. If the geese are feeding close to the road, park opposite the buildings so that the geese will not see you. This area is the best for observing large numbers of Canada Geese, Northern Pintails and smaller numbers of other puddle ducks. Also watch for Greater White-fronted Geese and Snow Geese. (See Table 2 and Figure 3.)


2
19
9
Cobb Lake Creek
Pendleton
South Nation River
2
101
102
Schnupp
Bourget
Riceville
Bear Brook
to St-Isidore-de-Prescott and Hwy. 417
16
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km
The Bourget - Cobb Lake Creek - Riceville Area

Figure 2

Table 1 Carlsbad Springs - Bear Brook

1985	Mar. 28	Mar. 29	Mar. 30	Apr. 8	Apr. 11
Gr. W.-fr. Goose	-	1	-	-	1
Snow Goose	-	9	10	-	1
Canada Goose	1,000	2,000	1,200	2,500	1,500
G.-winged Teal	-	4	-	7	3
Am. Black Duck	180	120	35	22	5
Mallard	120	270	100	75	30
Northern Pintail	420	1,500	375	135	-

1986	Mar. 27	Mar. 29	Apr. 2*
Tundra Swan	1	1	-
Canada Goose	1,000+	3,000+	1,000+
Wood Duck	4	58	-
Green-winged Teal	4	39	-
American Black Duck	250+	150+	-
Mallard	875	625	-
Northern Pintail	210	2,100+	-
Blue-winged Teal	-	3	-
Northern Shoveler	-	19	-
Gadwall	-	5	-
American Wigeon	14	7	-
Ring-necked Duck	-	-	38

* *most of area flooded on March 29 and dried up by April 2*

Table 2 Cobb Lake Creek - Pendleton - Riceville

	Apr. 8* 1985	Apr. 8** 1985	Mar. 29** 1986	Apr. 2** 1986	Apr.2* 1986
Gr. W.-fr. Goose	-	-	-	7	-
Snow Goose	32	580	35	72	-
Canada Goose	12,000	40,000	12,000	50,000	10,000
Wood Duck	9	-	24	10	16
G.-winged Teal	65	-	18	-	-
Am. Black Duck	200	-	220+	-	25
Mallard	500	-	1,000+	-	42
N. Pintail	3,000	10,000	5,000+	1,000+	1,850
B.-winged Teal	12	-	-	-	-
N. Shoveler	2	-	12	-	1
Am. Wigeon	40	-	14	-	12
Ring-necked Duck	-	-	36	-	-
Lesser Scaup	-	-	-	-	3

* *Cobb Lake Creek*
** *Riceville area*

Remember the following points, particularly for the Cobb Lake Creek - Pendleton - Riceville Area.

1. The best viewing conditions are in the early morning before the heat waves make visibility poor. Also, overcast days are better for lighting conditions. It is a definite asset to have a scope with you when you are observing in these areas.

2. Some roads are flooded during the peak runoff and others become very muddy and soft. Be particularly cautious of these conditions in the Cobb Lake Creek - Pendleton - Riceville Area. The main roads are paved at Bear Brook, but in both areas, stop or park only where you will not obstruct traffic.

3. The best time is usually late March to mid-April, depending on runoff. Remember that the water peaks for only a few days and then drops off quickly. If you hear that conditions are good, don't wait until the following weekend because by then the areas could be bone dry. Keep in touch by telephoning the Bird Status Number (225-4333).

Figure 3. This view gives you some idea of the concentrations of waterfowl that can congregate in the flooded fields near Riceville. Photograph from a slide taken by the author on April 8, 1985. ¤

OFNC S

Place: **Unitarian Church Hall**
30 Cleary Street (See map elsewhere in this issue.)
The #18 bus stops at Cleary Street and Richmond Road.

Reservations: To order tickets, fill in the order form and send it along with $7.00 ($3.50 for students under 18) per ticket before April 15 to:

The Ottawa Field-Naturalists' Club
c/o Ellaine Dickson
2037 Honeywell Avenue
Ottawa, Ontario
K2A 0P7

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Pot-luck Supper
Friday
May 1, 1987 7:30 pm

Pot-luck

Every member attending will be required to bring one food item from the following categories as indicated on their ticket (quantity will also be indicated):

- meat dish
- vegetable dish
- buns or other bread item
- salad
- dessert

Refreshments (alcoholic and non-alcoholic punch, coffee and tea) will be supplied.

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Art & Photography
Exhibits

- This is *your* chance to display your talent.
- Photographic prints are eligible for a prize, an Ellaine Dickson carving.

Those wishing to contribute an exhibit please see notice elsewhere in this issue.

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Address _____

_____

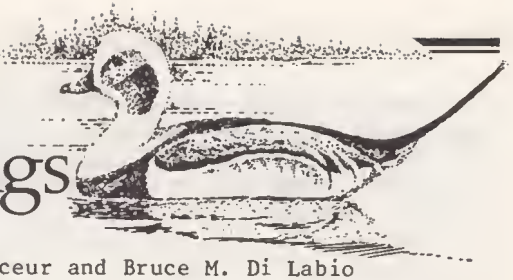
_____ phone _____

Please send me _____ tickets to the OFNC Annual Soirée at $7.00 ($3.50 for students under 18) per person. Enclosed please find my cheque or money order for

$.....

If you have a favourite recipe and would like to have a ticket indicating a particular food category, please note category here

Recent Bird Sightings



V. Bernard Ladouceur and Bruce M. Di Labio

Where would we be without the Ottawa River? The Ottawa-Hull region would not be here in the first place, but if it were and there was no Ottawa River, birding would be a lot less interesting. This is particularly true in the autumn.

The Ottawa River is the centre of focus for birders from late July to early January. Why? Because the Ottawa River Valley is a route used by many birds travelling from as far away as Hudson's Bay to as far away as the Atlantic Ocean. Because Lac Deschênes is by far the most attractive area within a 100 km radius for loons, grebes, ducks and so forth, to stop, rest and feed. Because a narrow passage such as the Deschênes Rapids acts as a sort of funnel giving birders close views of birds moving up or down the river. Because when the river is low, it is an obvious place for shorebirds to touch down and feed. There are more reasons, but we won't bore you.

Don't get us wrong. There are dismal days on the river, but there are exceptional, almost magical, days too.

What follows is by no means a comprehensive discussion of the birds along the Ottawa River, but we hope it will demonstrate why we continually cover the same old ground (water?) between Constance Bay and Nepean Bay, and especially between Shirleys Bay and Britannia/Deschênes.

Weather is the all-important factor.

The Ottawa River

The first week of September was quite good. The highlight was sightings of a Western Sandpiper on September 2nd at Shirleys Bay and September 5th at Ottawa Beach. Both birds (or the same one?) were (was) photographed and otherwise well-documented. The same can not be said of most sightings of Western Sandpiper. These sightings fit into a pattern, with most previous records being in late August and early September.

A number of Hudsonian Godwits moved through on the evening of September 4th while weather conditions were unsettled. On September 6th, two Red Phalaropes appeared at Ottawa Beach and Shirleys Bay. The bird at Shirleys Bay stayed until September

8th.

There were Baird's Sandpipers in "ones, twos and threes" during the first week of September, and also a number of Red-necked Phalaropes. (There was a late Wilson's Phalarope at Casselman Sewage Lagoon on September 7th.) Short-billed Dowitchers were scarce with only one bird resident at Shirleys Bay from August 29th into early September. Juvenile Stilt Sandpipers were completely absent. (A number of adults moved through from mid-July to early August; by mid-August most of the shorebirds moving through the Ottawa District are juveniles.)

On September 11th, the Northern Shoveler numbers at Shirleys Bay peaked at 156. The last Red-necked Phalarope was observed on September 13th.

Then the water level rose and a promising shorebird migration went out the window.

A cold front moved through on September 20th, and with it came an immature dark-phase Parasitic Jaeger. The next day, a Buff-breasted Sandpiper was at Ottawa Beach.

No Long-billed Dowitchers were seen this fall. We appear to get a number of these every second year only, but this could be because of water levels, since most juvenile Long-billed Dowitchers move through during late September and early October.

White-rumped Sandpipers could be seen everywhere - flooded fields, Nepean Dump, sewage lagoons, as well as the river; a high count of 59 was registered.

There was another cold front on the evening of October 6th, and yet another Jaeger, this time an immature, dark-phase Pomarine was seen at Shirleys Bay.

It was a good fall for some bay ducks. On the October 11th weekend, there were 4,000 Ring-necked Ducks, 1,870 Lesser Scaups and 295 Greater Scaups. Also on the October 11th weekend was the first Red-throated Loon and a Richardson's (an unbelievably small race of) Canada Goose.

Surf Scoter was virtually absent. While it is a lot less common than White-winged Scoter, it is usually more common than Black Scoter - except when large flocks of male Black Scoters are moving through.

There was a late Baird's Sandpiper on October 18th and two more Red Phalaropes at Britannia on October 19th.

Brant first appeared on October 22nd, and with the cold front on October 23rd were 320 (male) Oldsquaw and 50 (male) Black Scoters. Recall from previous articles that these large

flocks of scoters and Oldquaw invariably consist of males.

Common and Barrow's Goldeneyes really started to move through in late October as the following chart will demonstrate.

Date	Common Goldeneye	Barrow's Goldeneye
October 25	195	4 (adult males!)
26	750	1
27	1,110	1
28	420	1

Are Barrow's Goldeneyes becoming more common in our region? They appear to be. This winter we have three or four resident between Remic Rapids and Britannia.

The best day of the autumn was probably October 30th. (Of course, there was a weather front!) Early that morning, there was an exceptional number of 1,800 (male) Black Scoters, as well as 500 Brant and 500 (male) Oldsquaw. As if these weren't enough, there was yet another Pomarine Jaeger at Shirleys Bay, this time an adult, dark-phase bird.

Later that morning, after everything had disappeared, an immature Bald Eagle was seen flying up the Ottawa River.

On November 1st, a Snow ("Blue") Goose appeared. The next day, there were still 250 Brant as well as two Snowy Owls at Stillwater, and a Varied Thrush was found on the dyke at Shirleys Bay.

A King Eider made a brief appearance at Shirleys Bay on the morning of November 4th. On November 5th, there were still 75 Northern Shovelers at Shirleys Bay. (Numbers had dropped considerable a few days later.) A Golden Eagle was seen migrating at 3:30 p.m. over Shirleys Bay the same day.

There were a few first-winter Lesser Black-backed Gulls seen the first week of November at Nepean Dump. These birds would have roosted with the rest of the gulls on the Ottawa River.

November 7th saw the last of the Brant. After a number of single observations, five Red-throated Loons were seen flying through on November 9th.

Then came the big day that wasn't. On the evening of November 12st, conditions for the morning of November 13th were forecast to be cloudy with a cold front moving through and a frigid Arctic high pressure system to follow. But when we woke before dawn on November 13th, what did we see? Stars!

The cold front had already moved through and with it perhaps thousands of birds. It was very cold that morning, and

knowing there would be no big day made it colder. There were two Purple Sandpipers flying downriver, which is interesting because the same thing happened "the day after" last year. (Also note that Buff-breasted Sandpiper was seen the day after a cold front. We guess that some shorebirds take their time.)

The weather was dynamic on November 14th, and an eider - almost certainly a King Eider - was observed flying downriver from Stillwater.

Fall migration started to wind down slowly after that.

A total of 150 Great Black-backed Gulls were counted along the river on November 22nd, and this would indicate that there were hundreds of this species in the area. Some were seen even at Constance Bay, which would have been unheard of a few years ago. As many as 60 persisted into January.

An adult Lesser Black-backed Gull was seen at Ottawa Beach on November 23rd and 29th.

Late November and early December were unseasonably cold, and birds moved out en masse.

On December 11th, a Gyrfalcon flew by Britannia Point.

Very mild weather followed for several weeks (thank you, El Niño) and many of the gulls that had left returned, and late migrating waterfowl put in an appearance.

The highlight of the fall was an adult Common Black-headed Gull. It was found on the Ottawa-Hull Bird Count on December 21st as it came into roost below the Deschênes Rapids with the rest of the gulls. This bird was most cooperative as it lingered into January and put in appearances at the Nepean and Carp Dumps as well as on the river. This is the second record for this species in the Ottawa District. The first one was found on September 30, 1975.

On December 22nd, a Canvasback and a late Greater Scaup appeared at Deschênes. Both birds made it into January, and with the mild weather, White-winged Scoter and Red-necked Grebe also appeared early in January. In addition to these, there were two Lesser Scaup and a Ring-necked Duck, a number of Barrow's Goldeneyes, and one or two Ring-billed Gulls (and Herring, Great Black-backed, Glaucous and Iceland Gulls) still present early in January.

As we write, the mild weather continues, which means we will continue to check the Ottawa River.

Birding the Woods

The land bird migration was very disappointing. There really wasn't a good day for warblers. Late September and early October were good for Gray-cheeked Thrush and other migrants. On October 5th, there were at least three Orange-crowned Warblers at Britannia and one at Clyde Woods. The next day, eight were seen in Clyde Woods. Orange-crowned Warblers move through during the first or second week of October in these numbers every year.

Feeder Birds

On November 10th, a Yellow-throated Warbler landed on a balcony of an apartment building on Bathgate Drive near Montreal Road. It was relocated a few days later and could often be seen bouncing from balcony to balcony in a frenzied search for food. It was last seen on December 1st. No doubt the extremely cold temperatures at the time killed it along with many other small birds that attempted to overwinter. Numbers for White-throated Sparrow, Song Sparrow and so forth were much lower than average on the Christmas Bird Counts.

A Red-bellied Woodpecker appeared at a Buckingham feeder in early December and is still present as we write. A Carolina Wren was at Deschênes (back to the river) on October 11th, and perhaps it is the same bird that is wintering at a feeder in Aylmer. There is yet another Carolina Wren wintering in Ottawa.

Birds of Prey

It has been a pretty good fall and early winter for raptors. Rough-legged Hawks, Red-tailed Hawks and Short-eared Owls could be found from November to January in the extreme southeast and southwest of the Ottawa District.

A Long-eared Owl was located at Clyde Woods on October 26th. Perhaps this was one of the birds seen again on December 11. One of the owls could be seen hunting well after sunrise. One party watched it make about 30 strikes before finally catching a Meadow Vole. On December 17, another party watched the owl as it again attempted to secure food. At one point the bird hit the snow in what was its last attempt. It was picked up dead with virtually no flesh on it. There were at least two birds, because another Long-eared Owl was seen later the same day. It was not seen again.

Northern Saw-whet Owls turned up at various places around the city from October on, especially late in December. There was a small movement of Barred Owls in mid- to late December with some birds being spotted right down town.

Reports from other locations in Ontario suggested that Northern Hawk-Owls should be expected to appear here. Two have been found so far, one on the Arnprior-Pakenham Christmas Bird Count on December 26th and another on the Dunrobin-Breckenridge Christmas Bird Count on January 4th in Aylmer. The latter bird appears to be staying around.

A Bald Eagle was also seen at Pakenham on December 26th.

Winter Birds

There was a small movement of Boreal Chickadees from mid-October to early November, and a few Gray Jays turned up during November. For a better idea of winter bird populations, see the Christmas Bird Count Roundup beginning on page 100. And see you at the River! ¤

Activities of the Bird Records Subcommittee in 1986

Gordon Pringle

In 1986, the Subcommittee produced the *Ottawa District Bird Field List* as a companion to *A Birder's Checklist of Ottawa*. The Field List is a simple copy of the species from the Checklist on a card arranged in a manner suitable for recording daily observations and does not present the distribution information that is given in the Checklist. Both lists are available at the Nature Canada Bookshop (Checklist $.75 each; Field List 6/$1.00) and to Club members at Club meetings (Checklist $.60 each; Field List 6/$1.00).

The Subcommittee has revised its terms of reference so that members now have a limited tenure, and the voting procedure has been changed in a way that encourages the use of external referees when a report on a sighting of a rare bird does not generate a clear body of opinion among the members. The new terms of reference also stress the educational responsibilities of the Subcommittee.

The Bird Records Subcommittee solicits reports, photographs or recordings documenting any species that is not on *A Birder's Checklist of Ottawa*, has fewer than five records, or that has not been sighted for 10 years. Out-of-season observations are also of interest. Report forms are available from Gordon Pringle (telephone 224-0543). If you want help in preparing a report, or if you are unsure that a report is needed, contact any member of the Subcommittee.

In the material received and filed by the Subcommittee in 1986, the following sightings were found to be significant additions to the data presented in the Ottawa Checklist:

Lark Sparrow	Bruce Di Labio, June 13, 1984, Dunrobin (Jim Wickware's). New to the Ottawa List.
Red-necked Grebe	Tony Beck, January 18, 1986, Remic Rapids. Out of season sighting.
Varied Thrush	Gordon Pringle, December 14, 1985, Marvelville. Overwintered.
Yellow-breasted Chat	Colin Gaskell, November 21, 1985, 90 Irving Place, Ottawa.
Northern Wheatear	Roy John, May 12, 1986, 190 Colonnade, Nepean.
Long-billed Dowitcher	Mark Gawn, July 28th, 1986, Shirleys Bay.
Marbled Godwit	Roy John, May 10, 1986, Richmond Lagoon.
Sandhill Crane	Tony Beck, May 18, 1986, Masson, Quebec.
Yellow-breasted Chat	Jack Horner, September 29, 1983, Uplands Airport, photograph.
Orchard Oriole	Richard Brouillet, June 14, 1986, Rockcliffe.
Connecticut Warbler	Tom Hince, September 23, 1983, Deschênes, Quebec.
Cattle Egret	Eleanor Thomas, June 6, 1986, Remic Lookout.
Western Sandpiper	Bob Bracken, September 5, 1986, Ottawa Beach.
Western Sandpiper	Bruce Di Labio, September 2, 1986, Shirleys Bay.
Red Phalarope	Bruce Di Labio, September 6, 1986, Ottawa Beach. Photogaph.
Varied Thrush	Mark Gawn, November 2, 1986, Shirleys Bay.
Sandhill Crane	Bruce Di Labio, July 17, 1986, Navan.
Little Gull	Bruce Di Labio, July 16, 1986, Ottawa Beach. ¤

Sixth Annual Christmas Bird Count Roundup 1986-1987 period

Astrid and Bruce Di Labio

Over the years, the Ottawa-Hull count has dominated the local Christmas Bird Count scene. This year, however, the glory was more evenly distributed. A combined total of 84 species was recorded, with Ottawa-Hull listing 67, Pakenham-Arnprior 53, Dunrobin-Breckenridge 50, and Carleton Place 44. This is the second highest combined total since the Christmas Bird Count Roundup began in 1981-1982. The total individual count was 46,272, down from last year's 59,878 and only 75 species. Many participants reported that the woods were very quiet and most activity centred around the feeders. Three of the four counts recorded new species, and all broke a number of records.

The weather conditions are always an important factor in determining the outcome of any count. For example, blizzard conditions on the 1985 Dunrobin-Breckenridge Count severely curtailed activities, resulting in an exceptionally low count. The overall weather conditions during this count period (December 18 - January 4) were mild with very little snow. The only complaint was the ice storm that struck the Ottawa area on Christmas Eve, leaving icy conditions and thus making walking and driving difficult in some areas. Thousands of trees and branches snapped under the weight of the ice. The Pakenham-Arnprior and Carleton Place Counts had to contend with these conditions. Due to the mild weather, usually frozen streams and creeks were open, leaving no access to some areas. A few soakers attested to that.

The Ottawa-Hull Count was held on December 21, 1986. Mild conditions through most of December left the Ottawa and Rideau Rivers open more than usual. But even with nice weather conditions, 103 field observers and 90 feeder watchers, only 67 species were recorded, compared to last year's 66 species. For the first time since 1970, no three-toed woodpeckers were noted, but one new species was recorded, an adult Common Black-headed Gull found by Ian Jones at Deschênes Rapids. This represents only the second accepted record for the Ottawa District. The first record was made at the old Ottawa Dump (off the Borthwick Ridge Road in Gloucester) on September 27, 1975, during a fall bird count by Stephen O'Donnell and Collin Griffiths. Other highlights included 15 Iceland Gulls, 100 Great Black-backed Gulls (reflecting mild weather conditions), 18 Pileated Wood-

peckers, one Carolina Wren, 19 Northern Shrikes, 79 House Finches and 1,133 Pine Siskins. The count was compiled by Allan Cameron.

The Boxing Day count, Pakenham-Arnprior, with 34 field observers and 3 feeder watchers, produced a record 53 species. Two new species were found, a Great Blue Heron and an immature Golden Eagle. But not to outdo themselves, an immature Bald Eagle was also observed. Two eagle species in one day! That is hard to do at any time of the year in eastern Ontario, not to mention on a Christmas Bird Count! Other raptors included 18 Red-tailed Hawks, 12 Rough-legged Hawks, 5 Snowy Owls, 1 Northern Hawk-Owl and 2 Short-eared Owls. Highlights included 103 Mourning Doves, 19 Pileated Woodpeckers, both three-toed woodpeckers, 14 Northern Shrikes and 6 Red Crossbills. Hats off to Michael Runtz for his continued excellent work as compiler for the 11th consecutive year. We would also like to congratulate the Pakenham-Arnprior Count for finally beating the Dunrobin-Breckenridge Count. Try not to make it a habit!

The Carleton Place Count was held on December 27th. A total of 29 field observers and 44 feeder watchers recorded 44 species and a record 6,485 individuals. Six records were broken and two records were tied. Highlights included a flock of 14 Canada Geese, the second record of Wood Duck (the first being in 1967), 2 Ring-necked Pheasants (the first since 1955), and one Chipping Sparrow (the only one for the count roundup). The compiler was again Arnie Simpson.

For the first time in its six years of existence, no precipitation at all fell during the Dunrobin-Breckenridge Count, except for the remaining ice caked on the branches. It was a beautiful day, not at all typical of this count. A total of 50 species was seen by 46 field observers and 11 feeder watchers, two short of the 52 species recorded in both 1982 and 1986. Twenty records were set or tied, including two new species, a Great Black-backed Gull and a Rusty Blackbird. This brings the all-time list up to 73 species in six years. Highlights included 37 Great Horned Owls, both three-toed woodpeckers, 27 Pileated Woodpeckers, 6 Boreal Chickadees, 18 Northern Shrikes, 11 Northern Cardinals, 2 Eastern Meadowlarks, and 691 Pine Siskins. One distressing note is the continued destruction of habitat by new housing developments. This New Year's count was held on January 4, 1987, and was compiled by Bruce Di Labio.

We would like to thank all compilers, sector leaders and participants for their continued support of the local Christmas Bird Counts. It takes a lot of time and effort to put together a successful count. On point that we would like to bring up is that occasionally compilers are not always able to contact all former participants. This is not deliberate, and if you are interested in participating, make the effort to telephone your local compiler. Good luck in 1987. See you next season.

Species	Ottawa-Hull	Pakenham-Arnprior	Carleton Place	Dunrobin-Breckenridge
Great Blue Heron	-	1**	-	-
Canada Goose	-	-	14*	-
Wood Duck	-	-	1***	-
American Black Duck	217	1	-	148*
Mallard	184	-	-	20
Black/Mallard hybrid	3	-	-	-
Ring-necked Duck	1	-	-	-
Lesser Scaup	2	-	-	-
Common Goldeneye	452	-	12	-
Barrow's Goldeneye	2***	-	-	-
Hooded Merganser	2	-	-	-
Common Merganser	54	2	11	2*
Red-breasted Merganser	1	-	-	-
Bald Eagle	-	1***	-	-
Sharp-shinned Hawk	3	-	3*	2
Cooper's Hawk	2	-	1***	-
Northern Goshawk	4	3	-	3
accipiter species	1	-	-	-
Red-tailed Hawk	8	18*	3	2***
Rough-legged Hawk	16	12	1	-
Golden Eagle	-	1**	-	-
American Kestrel	14	8	2	8
Merlin	1	-	-	-
Gray Partridge	63	26	-	2
Ring-necked Pheasant	3#	1	2	-
Ruffed Grouse	30	46	11	59*
Common Black-headed-Gull	1**	-	-	-
Ring-billed Gull	7	-	-	-
Herring Gull	272	-	-	3*
Iceland Gull	15*	-	-	-
Glaucous Gull	30	-	-	-
Great Black-backed Gull	100*	-	-	1**
Rock Oove	3,355	917*	788	568
Ring Turtle Oove	2#	-	-	-
Mourning Oove	94	103*	57	13
Eastern Screech-Owl	1	-	1	-
Great Horned Owl	22	7	7	37*
Snowy Owl	1	5***	-	-
Northern Hawk-Owl	-	1***	-	1***
Barred Owl	5	1***	-	3*
Short-eared Owl	-	2*	-	-
Northern Saw-whet Owl	2*	1***	-	1***
Belted Kingfisher	1	-	-	-
Oowny Woodpecker	118	75	91	75
Hairy Woodpecker	79	64	102*	126
Three-toed Woodpecker	-	1	-	3
Black-backed Woodpecker	-	4	-	2
Northern Flicker	1	-	-	-
Pileated Woodpecker	18*	19*	7	27*
Horned Lark	-	8	-	60
Blue Jay	323	200	375	318
American Crow	448	120	134	122*
Common Raven	5	8	-	34
Black-capped Chickadee	2,365	879	610	1,408
Boreal Chickadee	1	-	-	6*
Red-breasted Nuthatch	27	25	2	11
White-breasted Nuthatch	154	69	80	114

* *record high*
** *new species for the count (therefore also record high for that species)*
*** *ties record high*
\# *exotic species.*

Species	Dttawa-Hull	Pakenham-Arnprior	Carleton Place	Dunrobin-Breckenridge
8rown Creeper	9	10	4	22
Carolina Wren	1	-	-	-
Golden-crowned Kinglet	3	5	4	33
American Robin	10	-	-	-
Bohemian Waxwing	2,868	298	143	195
Cedar Waxwing	-	-	30	-
Northern Shrike	19	14*	9*	18*
European Starling	2,508	363	217	208
Northern Cardinal	56	1	15	11*
American Tree Sparrow	118	63	160	250
Chipping Sparrow	-	-	1	-
Song Sparrow	4	1	3	-
White-throated Sparrow	2	-	1	1***
Dark-eyed Junco	79	13	16	17
Snow Bunting	212	1,595	124	1,421
Red-winged Blackbird	1	4	-	-
Eastern Meadowlark	-	-	-	2*
Rusty Blackbird	-	-	-	1**
Common Grackle	1	1	1	-
Pine Grosbeak	163	145	134	171
Purple Finch	6	2	57	-
House Finch	79*	10*	-	-
Red Crossbill	-	6	-	-
White-winged Crossbill	1	-	-	1
Common Redpoll	1,167	756	508*	805
Hoary Redpoll	-	-	-	2
Pine Siskin	1,133*	88	499	691*
American Goldfinch	382	127	220	126
Evening Grosbeak	1,507	1,648	1,632*	1,651*
House Sparrow	3,158	914	392	320

* *record high*
** *new species for the count (therefore also record high for that species)*
*** *ties record high.*

	Ottawa-Hull	Pakenham-Arnprior	Carleton Place	Dunrobin-Breckenridge
Total Individuals	21,997	8,693	6,485*	9,125
Total Species	67##	53	44	50

plus 1 hybrid and 2 exotics

SUMMARY: TDTALS FDR THE LAST FOUR YEARS

	1983-1984	1984-1985	1985-1986	1986-1987
Total Individuals	29,129	47,550	59,251	46,300
Total Species	78	97	75	84

CORRECTIDN: The total number of individuals recorded for the 1985 Pakenham-Arnprior Count was 9,298. The number of total individuals for the 1985-1986 counts summary above has been altered to reflect this correction. ¤

The Peregrine Falcon Release Program in Hull

Bruce M. Di Labio and Charles Dauphiné
Canadian Wildlife Service

Introduction

The *anatum* subspecies of the Peregrine Falcon (*Falco peregrinus*) has been the object of one of the most intensive efforts to re-establish a bird endangered with extinction in North America. From the late 1940s to the mid-1960s, the *anatum* peregrine rapidly disappeared from most of its vast range east of the Rockies and between the tundra and the Gulf of Mexico (Fyfe 1976a). Persistent organochlorine chemicals, such as pesticides like DDT, accumulated in the peregrine's food chain and, once concentrated in the peregrine's body, inhibited its reproduction (Hickey 1969). By the time the use of organochlorine pesticides came under tight restriction in North America in the early 1970s, the peregrine had ceased breeding at all of its known eyries (nest sites) east of the Mississippi and in central and eastern Canada (Cade and Fyfe 1970).

In 1970, wildlife administrators in Canada urged the Canadian Wildlife Service to collect some specimens from the surviving wild population and breed them in captivity. Having too small a residual population with which to work, scientists in both the United States and Canada believed that a captive breeding and release program was the most feasible way to seek the species' recovery. Canadian Wildlife Service scientists developed a method for breeding peregrines in captivity and began to produce young for release into the wild at a special facility at Wainwright, Alberta (Fyfe 1976b). Two techniques, "fostering" and "hacking" were used. Fostering is the addition of captive raised young to nests attended by wild parents, and hacking is the release of young birds from an artificial nest site without parents (Price 1980, Sherrod *et al.* 1982). Over the vast area where peregrines were absent, hacking was the only choice.

In 1976, provincial wildlife agencies and the Canadian Wildlife Service embarked on an experimental program to release young peregrines in southern Canada. Releases have occurred at about 15 sites each year and have typically involved fewer than 10 birds per site. The sites have been widely separated geographically, occurring from Alberta to the Bay of Fundy. Hull was one of the sites initially chosen (Price 1980), and releases have occurred there every year from 1976 to 1986; 63 birds have been released to date (Table 1). Approximately 750 young falcons have been released in Canada to date.

Table 1. Peregrine Falcons released in Hull, Quebec, between 1976 and 1986

YEAR	NUMBER OF BIRDS RELEASED	
	Fontaine Building	Place Vincent Massey
1976	-	4
1977	-	4
1978	4	-
1979	4	-
1980	4	4
1981	8	4
1982	3	3
1983	2	2
1984	-	6
1985	3	-
1986	8	-
TOTAL	36	27

Releasing Falcons in 1986

In 1986, we released eight peregrines from a hack box or cage on the Fontaine Building in Hull, overlooking the Ottawa River (Figure 1). The Canada Life Assurance Company sponsored the release by providing $3,200 toward the purchase of the birds. Mr. Ray Cholette and other Canada Life officials participated in the transfer of the young birds from their shipping crate to the hack box (Figure 2). The Hull release was only one of several efforts to assist endangered species that Canada Life has sponsored (Stott 1986).

We found that, like all others associated with the hacking of peregrines, we became strongly attached to the young birds as they developed from downy chicks (Figure 3) to sleek and agile masters of the air (Figure 4). Excerpts from our field notes reveal their rapid but sometimes shaky progress (Table 2). By early October we believe that all peregrines we released at the Fontaine Building had left the Ottawa-Hull area. On October 12, we cleaned the site, leaving the hack box open in case a returning pair should want to nest in it next spring. As of January, 1987, none of the eight birds released have been reported dead, and we assume that at least some are now wintering successfully in Central or South America.

Figure 1. The hack box on the Fontaine Building, Hull, Quebec. Photograph from a Canadian Wildlife Service slide.

Figure 2. Media coverage of the young Peregrine Falcons being removed from the shipping crate, July 9, 1986. Photograph from a slide by J. Foley.

The Success of the Reintroduction Locally and Nationally

As far as we know, peregrines have not yet started to nest regularly in the Lower Ottawa Valley region. There have been some impressive attempts, however. In 1983, a pair of falcons (both released from Hull) produced two young in Arnprior (Ridgen and Lang-Runtz 1984), but unfortunately the female was shot that summer. The male has returned to the site each year since but has failed to attract a mate. In 1984, another pair (origin unknown) laid eggs on the roof of a Hull office building but abandoned them before they hatched; the site has not been used since. Adult peregrines have been seen with increasing regularity in Ottawa and Hull over the past several breeding seasons. In May, 1986, a Toronto-released female was found dead on Parliament Hill in Ottawa. At least one male has been seen regularly in western Ottawa and may actually have established year-round residence. Elsewhere east of Manitoba, known successful peregrine nestings were non-existent until the summer of 1986, when three were observed. In addition, pairs maintained territories at several other former nest sites, where they may breed in 1987. So, while in general progress has been spotty, prospects are now brightening.

One fact is emerging which bodes well for the future; the released peregrines are far more mobile than formerly thought and can end up mating and nesting far from their release site. For example, birds released in the northeastern United States have attempted to breed in southern Quebec. A bird released in Toronto paired with an American bird in Boston in 1985, and a Montreal-released bird established a breeding territory in Winnipeg in 1986.

The Future Direction of the Reintroduction Program

Peregrine recovery has occurred more rapidly in the eastern United States, largely, it is thought, because American biologists have released about twice the number of birds in that area alone than have been released in all of Canada. Because young peregrines suffer high mortality (about 75%) in their first year and do not become sexually mature until two or three years of age, it has become evident that concentrating releases in a small area is the surest way to establish a breeding pair. A national Canadian plan for the recovery of the peregrine, which was adopted in 1986 by federal and provincial wildlife agencies, recognizes that, although our lower success may be due partly to residual contaminants and other ecological problems, it could be mainly due to our "far-flung" release program. Consequently, it advocates fewer, larger releases. For that reason, we have become interested in increasing the number of birds released in the Ottawa/Hull area to at least 15 per year. Once a nesting pair is established, we can discontinue hacking and shift to fostering captive-raised young to the pair if necessary. To

Figure 3. A young peregrine about 30 days old, July 8, 1986.

Figure 4. A young peregrine about two months old. Both photographs from slides by Bruce Di Labio.

release more birds, we need several more hack sites; we are now investigating potential sites for use in Ottawa in 1987, in cooperation with the Ontario Ministry of Natural Resources.

Acknowledgements

We thank P. Dunn, H. Blokpoel, C. Hyslop, D. McRae, L. Métras and I. Price for help with handling, feeding and observing the falcons. Glenview Realty (Ottawa) Ltd. allowed the use of the Fontaine Building as a hack site, and the superintendent, P. Mahorage, was extremely cooperative and helpful. I. Price and A. Harfenist reviewed earlier versions of this manuscript and made valuable improvements.

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Table 2. Selected observations of falcons released from hack box on Fontaine Building in Hull, Quebec, 1986

Date	Time	Observation
First Release (4 birds)		
24 July	4:50 a.m.	Hack box opened
	5:10 a.m.	First falcon emerged, began exercising wings
	5:15 a.m.	First falcon flew, circled, returned to platform
	5:20 a.m.	Second and third falcons emerged from hack box
	5:24 a.m.	Fourth falcon emerged, exercising wings
	6:50 a.m.	First falcon circled building again
	11:00 a.m.	Second bird flew to nearby apartment building and landed on balcony. Later rescued and returned to hack box following morning
25 July	6:30 a.m.	Third and fourth falcons flew first time
	1:40 p.m.	Second falcon recovered from under Interprovincial Bridge, returned to hack box
26 July	-	All falcons flying frequently and landing on adjacent buildings
	-	Second falcon flew across Ottawa River to External Affairs Building, returned next day
28 July	-	All falcons away from site during most of day, returning at night.
Second Release (4 birds)		
17 August	5:20 a.m.	Hack box opened; heavy fog
	9:45 a.m.	After heavy fog lifted, all four falcons emerged
	12:25 p.m.	One bird made first flight, returned to building, kept landing on vertical wall
	2:00 p.m.	Total of six falcons present (two from fist release)
	4:20 p.m.	Two falcons flying. On falcon harassed by a falcon from the first release and driven off
	7:30 p.m.	Young female plucking its down off plumage, still too young to fly
18 August	8:00 a.m.	All falcons away, two on first flight. Observed perched on neighboring buildings.
	4:00 p.m.	All four falcons present
20 August	-	Falcons away from site most of day ¤

The 1986 International Ornithological Congress

Roger Taylor and Bruce M. Di Labio

The International Ornithological Congress is a meeting that is held every four years in a major city. It is the single most important conference for the world ornithological community. From June 22 to 29, 1986, the 19th Congress met in Ottawa under the sponsorship of the National Museum of Natural Sciences with Dr. Henri Ouellet of the Museum as Secretary-General. Nearly 1400 people came to this meeting from all over the world, making it the largest ornithological conference ever held, a tribute to the organizational efforts of Henri Ouellet and the drawing power of our national capital.

The single most important component of such a congress is the scientific program. But, given suitable quality in the lecture presentations, the success or failure of the conference is often determined by the local program, particularly the excursions. During the 1986 Congress, many members of The Ottawa Field-Naturalists' Club contributed their time freely to the leading of a highly successful series of excursions, thereby contributing enormously to the success of the Congress.

The local committee consisted of Roger Taylor (chairman), Frank Bell, Bruce Di Labio, Jaroslav Picman, Iola Price, Vic Solman, Jean Vaillancourt and Steve Wendt, all of Ottawa, plus David Bird, Bob Lemon and Roger Titman of Montreal. Very sadly, Frank Bell was taken ill many months before the Congress took place. He was unable to participate in any of the events and died soon after. Before his illness, Frank worked with great enthusiasm for the committee and did all of the early organizational work for the bird excursions. As his illness progressed, Bruce Di Labio took over his duties and saw them through to completion.

On each of five mornings, three bus loads of enthusiastic ornithologists each with three leaders headed out at 5:00 a.m. from the Capital Congress Centre, each to a different location to see what exotic species could be found in Gatineau Park, Shirleys Bay (Figures 1 and 2), behind the airport, or along Anderson road. On some mornings, it poured rain; the weather conditions were far from ideal, but nothing would stop these people from seeing their birds. Imagine the thrill for people seeing their first Hairy Woodpecker, Rose-breasted Grosbeak or Scarlet Tanager. These thrills were shared by the leaders themselves, who derived a great deal of personal pleasure from showing, for example, an eminent ornithologist from Holland his first Black-throated Green Warbler. Even for those who knew the birds, it was still refreshing to see them in the habitats that exist here in Ottawa. The enthusiasm for these excursions

Figures 1 and 2. Two views of Bruce Di Labio and some of the international ornithologists on the dike at Shirleys Bay during an early morning excursion. Photographs by Lynn Ball of *The Ottawa Citizen*.

persisted right through to the last morning of the Congress when the buses were still filled to capacity.

Also, each morning at 6:30 a.m., another bus load of fresh air enthusiasts headed out to a location along the Ottawa or the Rideau for a stroll to enjoy the early morning and work up an appetite for breakfast and the lectures to come.

On Thursday, June 26, the entire Congress took the day off and devoted itself to a wide variety of excursions. The most popular of these was *Birdwatching for Fanatics*. This trip, starting at 4 a.m. and lasting 12 hours, had so many participants (62) that two buses were necessary. One group spent most of the day birding on the Quebec side of the Ottawa River, while the other stayed strictly on the Ontario side. The Quebec group managed to beat out the Ontario group in the friendly competition for most species by the score of 114 to 95.

Other local excursions included a half-day of relaxed birdwatching along the Carp Ridge and surrounding area, a visit to the Stony Swamp area for butterflies, a botanical tour of Gatineau Park, a trip to examine the wetland ecology of Alfred Bog, a bird banding field trip to Innis Point and another field trip to learn about blackbird studies being conducted in Ramsayville Marsh.

Further afield, day trips were organized to visit the Petawawa Forest Research Institute, the Queen's University Biology Station at Chaffey's Locks, the Raptor Research Centre at Ste-Anne-de-Bellevue, the city of Montreal, the Thousand Islands and Kingston area, and also to go whitewater rafting on the Ottawa River.

Fortunately, the weather was cooperative on the day off and the trips generally went quite smoothly with only the occasional minor hitch, such as the lady who turned up in high heels for the Alfred Bog trip! She seemed to think that any self-respecting bog came equipped with a boardwalk.

More than 50 people led or assisted in the leading of excursions, many of them going out on two or more occasions. Most of them were Ottawa Field-Naturalists' Club members. Their enthusiasm and their terrific dedication and cooperation were vital to the overall success of the 1986 International Ornithological Congress. As members of the local organizing committee, we wish to express our thanks to all those of our friends who contributed their time and energy towards sending 1400 ornithologists home with a warm feeling about Ottawa.

We wish to thank Lynn Ball of *The Ottawa Citizen* for kindly providing the photographs for this article and granting us permission to use them. ¤

The Cornwall-Beauharnois Field Trip

Bruce M. Di Labio

Based on earlier sightings of many rare gulls, the Cornwall-Beauharnois field trip on November 8, 1986, was expected to be a great success. Eighteen area birders gathered to participate in this event.

In foggy and drizzling conditions, the convoy made its way down the highway, its destination the William H. Saunders Power Dam at Cornwall. When it arrived, about 2,000 Common Mergansers were feeding below the dam, along with a few hundred gulls. The number of Common Mergansers did not approach the 10,000 that are known to frequent this area later in the month. The group of gulls consisted mainly of Ring-billed and Bonaparte's; however, among the milling gulls was one second-winter Little Gull. Also seen during the stay was an immature Black-crowned Night-Heron, along with the usual sightings common to the area. After a thorough check of the power dam, the group made its way to McDonald's for coffee.

After drying out, the birders headed to the Beauharnois Dam near Montreal. The birds there turned out to be a great disappointment; the only truly noteworthy bird was a single adult Glaucous Gull, which, luckily, was seen by all. The poor weather conditions did nothing to buoy anybody's spirits, and by late afternoon everyone headed back to the Cornwall dam for a final check. Nothing new was seen, so a decision was made to head back for the warmth and comfort of home. ¤

Early Winter Field Trip

Bruce M. Di Labio

On Saturday, December 6, 1986, a group of 16 birders met at the Victoria Memorial Museum to participate in the early winter field trip. This particular morning was overcast with occasional flurries. The temperature was hovering near $0^{o}C$, and there was a strong southwest wind blowing. If it were not for the clouds, snow and wind, you would have said it was a beautiful day.

The first stop was at Uplands Airport along Armstrong Road. There was little to be observed in this area, but a Snowy Owl could be seen at a distance along Bowesville Road. The group

proceeded to the bridge at Manotick but saw very few ducks because the river was still open. However, one late Belted Kingfisher was seen flying overhead. After an exhaustive search of the area turned up no spectacular sightings, they headed for Barnsdale Road at the Rideau River. Nothing was seen but a few Mourning Doves at a local feeder.

The Nepean Dump was the best stop of the day. On the way there, a dark phase Rough-legged Hawk was seen battling the strong winds as it flew over the open fields. At the dump were 500 Herring, 60 Great Black-backed, 16 Iceland and 11 Glaucous Gulls. The plumages of the white-winged gulls ranged from first winter through to adult. This provided good experience for field identification for many of the group.

The next target of the enthusiastic birders was the back-roads of the Richmond area, where a few fortunate observers had a brief glimpse of a Snowy Owl.

The last stop was the Jack Pine Nature Trail on Moodie Drive. It was fairly quiet on the various trails, and activity centred on the feeders where Black-capped Chickadees and Evening Grosbeaks gorged themselves with reckless abandon. A Cooper's Hawk was observed flying overhead, and a Red-breasted Nuthatch was spotted at a suet feeder near the parking lot. By this time, the flurries had become a steady downfall, bringing a premature finish to the day.

Great Black-backed Gulls feeding at the Nepean Dump on December 6, 1986. At one time this species was a rare sight in the Ottawa area. Photograph from a slide by Bruce Di Labio. ¤

Members' Soiree

Help make this another special evening by contributing your photographic prints and art. Those members wishing to do so, please contact Colin Gaskell (728-7217) for confirmation or clarification before April 17th.

Prints and artwork must be mounted for easy handling. All items for display should be brought to the Unitarian Church between 4 and 6 p.m. on May 1st and taken home at the end of the evening.

This year, the best overall colour or black and white photographic print will be selected by ballots cast by all Club members in attendance. The lucky winner will take home a beautiful bird carving by Ellaine Dickson.

Prizes will also be awarded for the best Macoun Club displays. Children attending either primary or secondary school who are Ottawa Field-Naturalists' Club members but not Macoun members are invited to compete as well. Three outstanding books are being offered as prizes: *The Birds of Canada* by W. Earl Godfrey, *The Universe and Beyond* by Terence Dickinson, and the Reader's Digest *Book of the Great Barrier Reef*.

See the centrefold for complete information on the Pot-luck Supper. ¤

How to Get to the Soirée

Coming Events

arranged by the Excursions and Lectures Committee
Ross Anderson (224-7768), Chairman

Times stated for excursions are departure times. Please arrive earlier; leaders start promptly. If you need a ride, don't hesitate to ask the leader. Restricted trips will be open to non-members only after the indicated deadlines.

Date and time to be decided

AMPHIBIANS IN SPRING
Leader: Stephen Darbyshire
Meet: to be decided
The success of this outing is very dependent on the weather. If you wish to participate, telephone the Club number (722-3050) before March 10. When a date and a meeting place for the outing have been fixed, you will be notified by telephone. To accommodate more people, Stephen may run the excursion twice. Bring a strong flashlight and a long-handled dip net; wear rubber boots and warm clothes.

Tuesday
10 March
8:00 p.m.

OFNC MONTHLY MEETING
ASTRONOMY FOR EVERYONE
Speaker: Mary Grey
Meet: Auditorium, National Museum of Natural Sciences, Metcalfe and McLeod Streets
Mary Grey is Curator of the Astronomy Division of the National Museum of Science and Technology. She has an impressive background in stellar physics and latterly has been involved in the area of public education at the Museum. Her illustrated slide talk will provide an excellent introduction to the basics of sky watching without the aid of expensive optical equipment. Discover some of the more familiar constellations as well as certain nebulous objects through the marvels of astrophotography. There will be sky sheets for distribution and instructions on how to use them.
*** Please note that this presentation, originally scheduled for December 9, 1986, had to be cancelled on that date due to poor weather and road conditions. Apologies are extended to those people who could not be reached on short notice and showed up unaware of the cancellation. The Excursions and Lectures Committee regrets this very much.

Saturday
14 March
7:30 a.m.

LATE WINTER BIRDS AND EARLY SPRING MIGRANTS
Leader: Bob Bracken (728-3495)
Meet: Westgate Shopping Centre, southeast corner of the parking lot, Carling Avenue at Merivale Road

Dress warmly and wear waterproof footwear; binoculars are essential. This will be a half-day outing. Highlights might include Snowy Owls, wintering hawks and several finch species.

Wednesday
18 March
7:30 p.m.

TOUR OF THE ICHTHYOLOGY SECTION OF THE NATIONAL MUSEUM OF NATURAL SCIENCES
Leader: Brian Coad
Meet: Beamish Building, 1501 Carling Avenue west of Kirkwood Avenue. Use the parking lot and entrance on the west side of the building.*

Take advantage of this invitation to view the various components of the national fish collection. This extensive research collection contains more than one million specimens preserved in alcohol. Over a thousand species of Canadian fish and many foreign species have been acquired and catalogued. (See the article in Trail & Landscape 20(5): 191-194 (1986).) Dr. Coad is Curator of the Ichthyology Section, Zoology Division, of the National Museum of Natural Sciences.

* This outing is limited to the first 15 people to register by telephoning the Club number (722-3050).

Sunday
5 April
6:30 a.m.
****

BUS EXCURSION: BIRDING AT PRESQU'ILE
Leaders: Colin Gaskell and Rick Killeen
Meet: Loblaws, Carlingwood Shopping Centre, Carling Avenue at Woodroffe Avenue
Cost: $20.00 per person (prepaid at least ten days in advance)

This spring tradition is one of the Club's most popular outings. The highlight of the trip will be the large flocks of waterfowl gathered at the provincial park prior to continuing their northward migration. Bring enough food for this all-day excursion. Dress warmly and wear waterproof footwear. Bring binoculars or, better still, a spotting scope. Make your reservation by sending a cheque or money order (payable to The Ottawa Field-Naturalists' Club) to Ellaine Dickson, 2037 Honeywell Avenue, Ottawa K2A 0P7, **at least ten days in advance.** Include your name, address, telephone number and the name of the outing. REMEMBER ... the switch over to Daylight Saving Time has been advanced to Sunday, April 5th, at 2 a.m. Be sure to turn your clock forward one hour on Saturday night!

Saturday 11 April 2:00 a.m.

EARLY MORNING OWLING
Leader: Bruce Di Labio (729-6267)
Meet: Neatby Building, Central Experimental Farm, one block west of the Irving Place - Maple Drive stoplight on Carling Avenue. Use the parking lot west of the Neatby Building and south of the greenhouses.

If the outing goes according to plan, participants will learn to identify several owls and other nocturnal birds by their characteristic sounds and enjoy the dawn chorus. Great Horned, Barred, Saw-whet and, with a little luck, Long-eared Owls may be heard calling. Telephone Bruce if you are interested in participating. If for some reason the trip is postponed, he will be able to notify you. The outing is expected to last until about 8 o'clock.

Tuesday 14 April 8:00 p.m.

OFNC MONTHLY MEETING
A CENTURY OF BIRDING AT POINT PELEE
Speaker: Tom Hince
Meet: Auditorium, National Museum of Natural Sciences, Metcalfe and McLeod Streets

Tom Hince is a long-standing member of the Club and a former editor of *The Shrike*. He is currently employed as a Park Naturalist and Interpretation Officer at Point Pelee National Park, and has held similar positions at both Pukaskwa and St. Lawrence Islands National Parks. His illustrated talk will focus on the historical evolution of birdwatching at Pelee, from the time of William Saunders, Percy Taverner and Jack Miner to the present. Emphasis will also be placed on the seasonal variation of birds and the phenomenon of migration.

Saturday 18 April 2:00 a.m.

EARLY MORNING OWLING
Leader: Ray Holland (225-9655)
Meet: Neatby Building, Central Experimental Farm, one block west of the Irving Place - Maple Drive stoplight on Carling Avenue. Use the parking lot west of the Neatby Building and south of the greenhouses.

Participants may expect to hear the diagnostic "hoots" of several owl species as well as the distinctive sounds of the American Woodcock, the Common Snipe and the Ruffed Grouse. The outing should last until about 8 o'clock. Telephone Ray if you are interested in participating. He will then be able to contact you if the trip has to be postponed on account of bad weather.

Sunday
26 April
6:30 a.m.

BUS EXCURSION: HAWK MIGRATION AT DERBY HILL, N.Y.
Leaders: Stephen O'Donnell and Bob Bracken
Meet: Loblaws, Carlingwood Shopping Centre, Carling Avenue at Woodroffe Avenue
Cost: $20.00 per person (prepaid; see below)
When weather conditions and timing are favourable, the spectacle of thousands of hawks migrating through Derby Hill is well worth the long bus ride. Bring enough food for this all-day outing. Dress warmly and wear waterproof footwear. Binoculars are essential. Canadians should bring proof of citizenship, and non-Canadians should carry passports. Binoculars, cameras and other equipment in "new" condition should be registered with Canada Customs (Port of Ottawa, 360 Coventry Road, or Port of Hull, Place du Portage, Phase II, COMM Level 1) in advance of the trip. Make your reservation by mailing your cheque or money order (payable to The Ottawa Field-Naturalists' Club) to Ellaine Dickson, 2037 Honeywell Avenue, Ottawa K2A OP7, **at least ten days in advance.** Include your name, address, telephone number and the trip name. If the weather forecast on the day before the excursion is particularly unfavourable, the trip will be cancelled. If the weather forecast for the eastern end of Lake Ontario (telephone 998-3440) is poor and you cannot be reached by telephone on the 26th, please telephone Rick Leavens (835-3336) to confirm the status of the trip.

Friday
1 May
7:30 p.m.

OFNC SOIREE - POT-LUCK SUPPER
Meet: Unitarian Church Hall, 30 Cleary Street
See the centrefold and page 116.

Saturday
2 May
7:30 a.m.

BIRD WALK FOR BEGINNERS
Leader: Ray Holland (225-9655)
Meet: Britannia Woods (entrance to Britannia Filtration Plant; Bus #18 stops here)
This is the first of a series of four Saturday morning walks for novice birders to be offered in May. Binoculars are essential, and insect repellent and waterproof footwear are advisable.

Sunday
3 May
9:00 a.m.

SPRING WILDFLOWER WALK
Leader: Rick Killeen
Meet: National Museum of Natural Sciences, front entrance, Metcalfe and McLeod Streets
This trip will explore a local area to see some of the early-blooming species of the Ottawa District. Bring insect repellent, waterproof footwear and a light snack for this half-day outing.

Tuesday
5 May
6:30 p.m.

EVENING STROLL IN STONY SWAMP
Leader: Ellaine Dickson
Meet: Lincoln Fields Shopping Centre, northeast corner by the garden centre, Richmond Road and Assaly Road

This is the first of four informal evening walks offered each May to expand members' general knowledge of natural history. Insect repellent may be useful; wear waterproof footwear.

Saturday
9 May
7:30 a.m.

BIRD WALK FOR BEGINNERS
Leader: Tony Beck (224-1683)
Meet: Britannia Woods (entrance to Britannia Filtration Plant; Bus #18 stops here)

This is the second in a series of four Saturday morning walks for novice birders in the month of May. Binoculars are essential, and insect repellent and waterproof footwear are advisable.

Tuesday
12 May
8:00 p.m.

OFNC MONTHLY MEETING
SPRING WILDFLOWERS
Speakers: Sheila and Harry Thomson
Meet: Auditorium, National Museum of Natural Sciences, Metcalfe and McLeod Streets

(Full details of this monthly meeting will be included in the May-August issue.)

The *Trail & Landscape* Twenty-year Index

The index for the first 20 years of *Trail & Landscape* will be available in the early summer. It is being offered to all Life, Honorary and 1987 paid-up Members, as one of the privileges of membership. If you want a copy of the index and have not so indicated on the 1987 membership renewal form, please write before March 31st to

Barbara Campbell
Trail & Landscape Index
The Ottawa Field-Naturalists' Club
Box 3264, Postal Station C
Ottawa, Ontario K1Y 4J5

DEADLINE: Material intended for the May-August issue must be in the Editor's hands before March 1 at the latest.

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